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### **REMARKS**

This response is intended as a full and complete response to the non-final Office Action mailed September 9, 2005. In the Office Action, the Examiner notes that claims 8-25, 28-52, and 61-159 are pending of which claims 25 and 135-137 and 159 are allowed, claims 8-12, 18-20, 25, 28-52, 61-107, 109-117, 122-128, and 138-158 are rejected and claims 13-17, 21-24, 28-30, 32-35, 85, 87, 108, and 129-134 are objected to. By this response, claims 8, 31, 36, 37, 61, 72, 95, and 135-137 are amended.

In view of the following discussion, Applicant submits that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicant believes that all of these claims are now in allowable form.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response, including amendments.

### **Amendments to the Claims**

By this response, claims 8, 31, 36, 37, 61, 72, 95, and 135-137 are amended. The amendments to the claims and the new claims are fully supported by the Specification, Drawings and Claims as originally filed. For example, the amendments to the claims are supported at least by page 74, lines 25-27 of the Specification.

Thus, no new matter has been added, and the Examiner is respectfully requested to enter the amendments to the claims.

### **Allowable Subject Matter**

The Examiner has indicated allowability of claims 25, 135-137 and 159. The Applicants thank the Examiner for indicating allowability with respect to these claims.

The Applicants respectfully note that at least claims 28-30, 32-35, 49-52, 129-131 and 132-134, which are either rejected or objected to in the Office Action, depend upon allowable claims 25 and 159; and thus these claims should instead be allowable.

The Examiner gives the following statement of reasons for indicating allowability of the allowed claims (emphasis added below):

"The prior art of record does not disclose nor reasonably suggest a method of transmitting programs to a plurality of transponders, prioritizing

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programs and assigning a number of different priority levels, allocating a portion of the bandwidth to signals by highest priority level to lowest, and continuing until all of the signals are allocated or all of the bandwidth is allocated, and then transmitting the plurality of signals to a plurality of transponders so that none of the transponders receives more than one of the signals as claimed in Claims 25 and 159." (page 2 of the 9/9/05 Office Action)

The Applicants respectfully note that claims 25 and 159 should be allowable for the very precise language contained in these claims, and not the paraphrasing in the above-recited reasons indicated by the Examiner.

The Applicants further respectfully note that the Examiner has indicated that the claims 135-137 are allowable on the Office Action Summary sheet. However, the Examiner has also rejected these claims. The Applicants respectfully request clarification of this inconsistency. For completeness, the Applicants have herein responded to the rejection of these claims.

**Objection to Claims 13-17, 21-25, 28-30, 32-35, 49-52, 85, 108, and 129-134**

The Examiner has objected to claims 13-17, 21-25, 28-30, 32-35, 49-52, 85, 108, and 129-134 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Applicants thank the Examiner for indicating the allowable subject matter with respect to these claims.

The Applicants respectfully note that independent claim 25 has been allowed by the Examiner, and should thus not be objected to. The Applicants further respectfully note that claims 28-30, 32-35 and 132-134 depend upon claim 25, and thus, instead of being objected to, should be allowable. The Applicants also respectfully note that claims 49-52 and 129-131 depend upon allowable claim 159, and thus, instead of being objected to, should be allowable.

The Applicants therefore respectfully request the Examiner to withdraw the objection with respect to claim 25. Moreover, the Applicants also respectfully request the Examiner to withdraw the objection with respect to claims 28-30, 32-35, 129-131 and 132-134 and instead allow these claims.

Regarding the other objected claims, the Applicants respectfully submit that the base claims upon which these claims depend are in allowable form. Therefore, the

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Applicants respectfully request that the objections to claims 13-17, 21-25, 28-30, 32-35, 49-52, 85, 108, and 129-134 be held in abeyance until the patentability of these base claims is agreed upon.

### **Objection to Claim 87**

The Examiner has objected to claim 87 stating that claim 87 "is dependent on canceled claim 59." Applicants refer the Examiner to Applicant's Re-Submitted Request for Reconsideration & Response to Notice of Non-Compliant Amendment filed in Group Art Unit 2611 on August 11, 2003 (the "Resubmission"). In the Resubmission, Applicants amended claim 87 to be dependent from claim 79. As such, Applicants respectfully submit that the Examiner's objection is obviated.

### **35 U.S.C. §103 Rejection of Claims 8-12, 18-20, 31, 36-48, and 122-128**

The Examiner has rejected claims 8-12, 18-20, 31, 36-48, and 122-128 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,253,275 to Yurt (hereinafter "Yurt") in view of U.S. Patent 5,115,309 to Hang (hereinafter "Hang") and U.S. Patent 4,868,866 to Williams (hereinafter "Williams"). Applicants respectfully traverse the rejection.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. The Yurt, Hang and Williams references, alone or in combination, fail to teach or suggest all of the limitations recited in claim 1, and thus fail to teach or suggest the Applicants' invention as a whole.

Specifically, the Yurt, Hang and Williams references, alone or in combination, fail to teach or suggest at least the "dividing said bandwidth so that each program category receives a segment of said bandwidth" as recited in claim 8.

The Yurt reference discloses that a "system of distributing video and/or audio information employs digital signal processing to achieve high rates of data compression" (abstract).

The Hang reference discloses a "dynamic channel allocation unit for specifying a bit rate for each video coder in a set of parallel video coders comprising an overall video coder" (abstract).

However, as the Examiner acknowledges, the "combination of Yurt and Hang fails to disclose dividing the bandwidth so that each program category receives a

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segment of the bandwidth, and allocating a portion of the bandwidth to high priority level programs" (page 5 of the 9/9/05 Office Action, emphasis added).

The Williams reference fails to bridge the substantial gap between the Yurt and Hang references and the Applicants' invention as recited in claim 8. The Applicants respectfully submit that the Williams reference is non-analogous art, and thus cannot be properly used as part of a rejection under 35. U.S.C. 103. The Williams reference discloses that a "broadcast data distribution system collects, edits, verifies, formats and distributes real-time (dynamic) and non-real-time (static) data" (abstract). However, the Williams reference principally relates to the broadcast of data related to the financial industry. Moreover, the Williams reference does not mention interactive television, or television program delivery systems. As such, one of ordinary skill in the art of interactive television would not have knowledge of the Williams reference, or be motivated to incorporate the disclosure of the Williams reference with references that are analogous. For this reason, the Applicants respectfully request the reference be withdrawn from the rejection.

Furthermore, as with the Yurt and Hang references, the Williams reference also does not teach at least the "dividing said bandwidth so that each program category receives a segment of said bandwidth" as recited in claim 8.

Regarding the Williams reference, the Examiner alleges (emphasis added below):

"Williams discloses a real-time broadcast data distribution method which assigns priorities to different categories of data, the available bandwidth is monitored and a priority queue is utilized to determine which data is to be broadcasted first (column 4, lines 1-14, column 11, lines 39-49, column 12, line 24-column 13, line 37), thus delivering programming messages which are of greatest interest to a group of users first.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of Yurt and Hang to utilize the priority assignment and queuing features as taught by Williams, thus delivering programming messages which are of greatest interest to a group of users first." (page 5 of the 9/9/05 Office Action)

Thus, the Examiner alleges that the Williams reference assigns priorities to different categories of data, monitors bandwidth, and utilizes a priority queue to determine which data is to be broadcast. However, the Applicants respectfully note that the Examiner has failed to allege that the Williams reference teaches the "dividing said bandwidth so

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that each program category receives a segment of said bandwidth" as recited in claim

8. The Applicants respectfully submit that the Williams reference lacks such a teaching.

In particular, regarding the priority queue, the Williams reference discloses (emphasis added below):

"Referring now to FIG. 8, there is shown data processing for the data transmission functional block 8 of FIG. 1. Starting at the top of FIG. 8, formatted broadcast messages are removed from the several queues 135, 445, 340, 250 by priority dequeuer 605, each of the queues having a predetermined priority. Messages are dequeued from a particular queue until either the queue is empty or a predetermined time period has elapsed. If there are any messages waiting in the particular queue being processed (NO output from QUEUE EMPTY test 610), a transmission block is built (block 620) with the dequeued message. If more room remains in the transmission block (NO output from 625), another message is dequeued (block 605). As some point, the particular queue may become empty (YES output from 610). If the current transmission block is also empty (YES output from 615), processing control is returned to the priority dequeuer 605. If the transmission block has messages in it, however, the transmission block is sent to a transmission interface 630 and is broadcast." (column 13, lines 39-58)

Thus, the Williams reference discloses that a dequeuer removes messages from the highest priority queue until that queue is empty. This is not the same as "dividing said bandwidth so that each program category receives a segment of said bandwidth". That is, dequeuing from a particular queue until it is empty does not provide each queue with a segment of the bandwidth, but rather provides all available bandwidth to the highest priority queue until it is empty. Thus, it is possible in the disclosure of the Williams reference that all of the bandwidth may be utilized by the highest priority queue, which is clearly in contrast to the claimed "dividing said bandwidth so that each program category receives a segment of said bandwidth".

Therefore, the Yurt, Hang and Williams references fail to teach or suggest the Applicants' invention as a whole as recited in claim 8.

As such, independent claim 8 is patentable over the Yurt, Hang and Williams references. Moreover, independent claims 18, 31, 36 and 37 have substantially similar relevant limitations. As such, independent claims 18, 31, 36 and 37 are also patentable over the Yurt, Hang and Williams references. Furthermore, each of the dependent claims depends, either directly or indirectly, from one of independent claims 8, 18, 31,

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36 and 37 and recites additional limitations thereof. Thus, claims 8-12, 18-20, 31, 36-48 and 122-128 are patentable for at least the reasons discussed above.

**35 U.S.C. §103 Rejection of Claims 61-78 and 138-143**

The Examiner has rejected claims 61-78 and 138-143 under 35 U.S.C. §103(a) as being unpatentable over Hang in view of U.S. Patent 4,949,187 to Cohen (hereinafter "Cohen"). Applicants respectfully traverse the rejection.

The Hang and Cohen references, alone or in combination, fail to teach or suggest all of the limitations recited in claim 1, and thus fail to teach or suggest the Applicants' invention as a whole.

Specifically, the Hang and Cohen references, alone or in combination, fail to teach or suggest at least "wherein said central processing unit divides said bandwidth so that each program category receives a segment of said bandwidth" as recited in claim 61.

As discussed above, the Hang reference fails to teach or suggest dividing the bandwidth so that each program category receives a segment of the bandwidth.

The Cohen reference fails to bridge the substantial gap between the Hang reference and Applicants' invention. The Cohen reference discloses a video communications system (see abstract). However, the Cohen reference also fails to teach or suggest at least dividing the bandwidth so that each program category receives a segment of the bandwidth.

As such, Applicants submit that independent claim 61 is patentable under 35 U.S.C. §103(a) over Hang in view of Cohen. Moreover, independent claim 72 contains substantially similar relevant limitations as discussed above in regards to claim 61. Thus, claim 72 is also patentable over Hang in view of Cohen. Furthermore, claims 62-71 and 73-78 and 138-143 depend, directly or indirectly, from independent claims 61 and 72 and recite additional limitations thereof. Accordingly, these dependent claims are also patentable under 35 U.S.C. §103(a) over Hang in view of Cohen.

Therefore, Applicants submit that the Examiner's rejection should be withdrawn.

**35 U.S.C. §103 Rejection of Claims 79-84, 86-94, and 144-149**

The Examiner has rejected claims 79-84, 86-94, and 144-149 under 35 U.S.C. §103(a) as being unpatentable over Hang in view of Cohen and Williams. Applicants respectfully traverse the rejection.

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For at least the reasons discussed above, the Hang, Cohen and Williams references alone or in combination fail to teach or suggest Applicants' invention as a whole.

Specifically, as discussed above, the Hang, Cohen and Williams references all fail to teach or suggest at least "a central processing unit for selecting the programs and also for dividing the bandwidth so that each of the program categories receives a segment of the bandwidth" as recited in claim 79.

As such, Applicants submit that independent claim 79 is patentable under 35 U.S.C. §103(a) over Hang in view of Cohen and Williams. Furthermore, claims 80-84, 86-94 and 144-149 depend, directly or indirectly, from independent claim 79 and recite additional limitations thereof. Accordingly, these dependent claims are also patentable under 35 U.S.C. §103(a) over Hang in view of Cohen and Williams.

Therefore, Applicants submit that the Examiner's rejection should be withdrawn.

**35 U.S.C. §103 Rejection of Claims 95-101 and 150-152**

The Examiner has rejected claims 95-101 and 150-152 under 35 U.S.C. §103(a) as being unpatentable over Yurt in view of Hang and Cohen. Applicants respectfully traverse the rejection.

For at least the reasons discussed above, the Yurt, Hang, and Cohen references alone or in combination fail to teach or suggest Applicants' invention as a whole.

Specifically, as discussed above, the Yurt, Hang and Cohen references all fail to teach or suggest at least a central processing unit "for dividing said bandwidth so that each of the program categories receives a segment of the bandwidth" as recited in claim 95.

As such, Applicants submit that independent claim 95 is patentable under 35 U.S.C. §103(a) over Yurt in view of Hang and Cohen. Furthermore, claims 96-101 and 150-152 depend, directly or indirectly, from independent claim 95 and recite additional limitations thereof. Accordingly, these dependent claims are also patentable under 35 U.S.C. §103(a) over Yurt in view of Hang and Cohen. Therefore, Applicants submit that the Examiner's rejection should be withdrawn.

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**35 U.S.C. §103 Rejection of Claims 102-107, 109-121, 153-158**

The Examiner has rejected claims 102-107, 109-121 and 153-158 under 35 U.S.C. §103(a) as being unpatentable over Yurt in view of Hang and Cohen in further view of Williams. Applicants respectfully traverse the rejection.

For at least the reasons discussed above, the Yurt, Hang, Cohen and Williams references alone or in combination fail to teach or suggest Applicants' invention as a whole.

Specifically, as discussed above, the Yurt, Hang, Cohen and Williams references all fail to teach or suggest at least a central processing unit "for dividing said bandwidth so that each of the program categories receives a segment of the bandwidth" as recited in claim 95. Moreover, independent claim 110 includes substantially similar relevant limitations.

As such, Applicants submit that independent claims 95 and 110 are patentable under 35 U.S.C. §103(a) over Yurt in view of Hang and Cohen and further in view of Williams. Furthermore, claims 102-107, 109, 111-121 and 153-158 depend, directly or indirectly, from independent claims 95 and 110 and recite additional limitations thereof. Accordingly, these dependent claims are also patentable under 35 U.S.C. §103(a) over Yurt in view of Hang and Cohen and further in view of Williams. Therefore, Applicants submit that the Examiner's rejection should be withdrawn.

**35 U.S.C. §103 Rejection of Claims 135-137**

The Examiner has rejected claims 135-137 under 35 U.S.C. §103(a) as being unpatentable over Yurt in view of Hang. Applicants respectfully traverse the rejection.

For at least the reasons discussed above, the Yurt and Hang references alone or in combination fail to teach or suggest Applicants' invention as a whole.

Specifically, as discussed above, the Yurt, Hang, Cohen and Williams references all fail to teach or suggest at least "dividing said bandwidth so that each of the program categories receives a segment of the bandwidth" as recited in claims 135-137.

As such, Applicants submit that independent claims 135, 136 and 137 patentable under 35 U.S.C. §103(a) over Yurt in view of Hang. Therefore, Applicants submit that the Examiner's rejection should be withdrawn.

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### **Official Notice**

The Office Action takes numerous Official Notices. Applicant hereby traverses each Official Notice. The Examiner alleges that certain apparatuses and/or methods are well known in the art. However, the Applicant respectfully disagrees. These apparatuses and/or methods may not be well known within the specific art of the present invention and as specifically recited in their respective claims. Furthermore, it may not be well known to combine the allegedly well known apparatuses and/or methods with other apparatuses and/or methods recited in the respective claims or in other claims from which the respective claims may depend.


### **CONCLUSION**

Thus, Applicant submits that none of the claims presently in the application are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Stephen Guzzi at (732) 383-1405 or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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